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ABSTRACT

Criteria for defining individual members of the preposition word class are set forth. Arguments are presented against calling prepositions meaningless, yet it is conceded and explained that those which occur in wider contexts are vaguer due to their greater variability. The unitary, polysemous, and/or homonymous nature of prepositions are discussed. Prepositions are found to have a single meaning but with some qualifications. Sometimes the choice of a preposition may be conventionally prescribed, either by favoring one of two or more compatible notions or by continuing relics of older uses of prepositions. Semantic reinterpretation may place conventional expressions of the second type among those of the first type. Prepositions in expressions of the second type only accord with their central meaning insofar as they do not contradict it. The central meaning of prepositions occurring in many different environments is the spatial, or most concrete, one. The temporal and abstract uses are derived from the spatial or concrete via a spatial metaphor. (PMJ)

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On Defining Prepositions*

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Throughout the history of linguistics there has been a small but persistent current of controversy concerning the appropriate way of defining prepositions. In this paper I will not be discussing the definition of the preposition as a part of speech, but will assume that such a class exists and will discuss criteria for defining individual members of that class. The question of criteria for definition is an interesting one for prepositions because they suffer from a notorious fluidity of meaning which is perhaps greater there than with any other part of speech. For example, Webster (7th Collegiate) has as examples of the use of in: swim in the lake, in the summer, go in the house, written in pencil, alike in some respects, leave in a hurry, break in pieces, said in reply, one in six. Why should the same lexical item be used in all those phrases?

This paper is necessarily very limited in scope, and a few disclaimers are appropriate at the outset. I will be speaking of prepositions in general and will not be applying my conclusions to any particular preposition, except fragmentarily for the purposes of illustration. Furthermore, the illustrations are almost all taken from either English or French, and this restriction to only two languages which are in addition related has no doubt biased the conclusions. Since I am only dealing with English and French I do not discuss the applicability of these conclusions to postpositions and cases, or even to prepositions in other languages, although these are eminently legitimate concerns.

Several trends can be detected in the literature on prepositions. First of all, there are those who say that the class of prepositions is a class of meaningless words. This is usually said by people for whom the notion of a class of meaningless or empty words is a pre-empirical requirement or preference. Among those who think that prepositions do have meaning most would hold that some prepositions have more meaning than others, the latter group having a more purely syntactic function than the former. A second question which has been asked about prepositions is, given that they are meaningful, do they form a semantic unity or not? As we shall see in the body of this paper, most linguists would agree that they do but some do no more than pay lip-service to the doctrine. The third question, which arises if the answer to the second is "yes", is what the basis of their meaning is, seeing that they can be used in so many different ways. Do they express logical relations, or is one of their meanings to be considered primary? I will consider these three questions in turn, discussing the arguments and evidence that have been put forward for each position.

Joseph Vendryes borrows from the Chinese the notion of "mots vides" (empty words) to be contrasted with "mots pleins" (full words) (Vendryes 1921:98). He uses this opposition to distinguish word classes, as Chinese linguists do, and mentions prepositions as an example of a class of empty words (p. 99). Empty words, he says, are those for which it is impossible to give a dictionary definition as they have no meaning of their own; they derive meaning only from their occurrence in a sentence: "they are coefficients, exponents, algebraic values rather than words" (p. 99). Tesnière also uses the full-empty opposition and designates the entire class of prepositions as empty of meaning. For Tesnière the notion of classes of empty words is a theoretical requirement, whereas for Vendryes it seems to be simply theoretically more pleasing; but for both the decision to designate prepositions as empty was pre-empirical. Most linguists, however, apply the full-empty opposition within the class of prepositions, to distinguish those which denote a more or less constant relation between two elements from those for which the meaning of the relation can vary widely from use to use. This is understandable since the meaning of many prepositions, for example pendant (la nuit) 'during (the night)', vu (les circonstances) 'considering (the circumstances)', malgré (la pluie) 'in spite of (the rain)', which Vendryes specifically terms "empty" (p. 198), can be specified much more precisely than would be the case if they were a simple "algebraic value".

It cannot be seriously held that all prepositions are meaningless, using the term "meaningless" in any normal sense. It would imply that we could not mean anything different by on the chair and under the chair, for example, or tasse de thé 'cup of tea' and tasse à thé 'teacup' in French. For the only determinant of choice of preposition would then be lexical and syntactic environment, and these would not distinguish in many instances in which examples like the above can be used. Furthermore, it would imply that a speaker has to learn each possible occurrence of each individual preposition one by one, in other words, that no possible generalization can be made about the potential occurrence of one preposition rather than another in any syntactic or lexical environment which had not yet occurred in her experience. It would also, of course, put a great load on the speaker's memory. And given the tendency of human beings towards generalization and induction, it is obvious that even if such a situation existed at some point in a language's development, the tendency would be for it to develop in the direction of a greater unity of meaning for its prepositions. Given this tendency to generalization and induction, the maximum number of meaningless prepositions that a language may have is one--the unmarked preposition, which is used if the environment requires a preposition but criteria are not fulfilled for any particular one. In light of such

theoretical considerations, it is interesting that a linguist like Gustave Gougenheim, who wrote several articles against the notion of meaningless prepositions, should come to the conclusion that French has exactly one meaningless preposition, namely de (1959:25). It is used purely syntactically as a "marker of the infinitive"[1] and in the partitive-article construction. There are nonetheless uses of de in French where there is a designatable meaning, that of "prélèvement" (taking a part from a whole), for example in sortir de la maison 'to go out of the house'. Similarly A. Weijnen characterizes van as the only meaningless preposition in Dutch (1965:119) even though it too has a designatable meaning, namely 'from' or 'belonging to', in a substantial number of its occurrences. The comparable preposition in English is of. In many of its uses it does not have other than a syntactic meaning, for example in nominalizations like the shooting of the hunters, with classifiers as in loaf of bread, lump of clay, or in constructions like brusqueness of manner or empty of meaning or sentences like It was sweet of you to bother. It is true that other prepositions in English also have what seem to be purely syntactic uses, for example to as a marker of the infinitive and by before gerunds, as in He became popular by smiling a lot. But in the latter construction by is not meaningless; it conveys the notion of 'means by which' which is also present in the use of by as the marker of the semantic subject in passive sentences and its use in sentences like He became rich and famous by luck and some hard work. As for the use of to before infinitives, although it seems to have lost all semantic value in sentences like To err is human, in sentences like (1) and (2) it still retains the notion of directionality or purpose which it has when preceding nouns:

1. He wants to get your goat.
2. He said that to get your goat.

The use of to in To err is human as well as in sentences in which its meaning is still evident can be explained by the notion of conventionality which I discuss later in the paper.

In spite of the fact that prepositions like à in French or to in English do have some meaning, they have a much wider scope of occurrence than for example contre 'against' or its English equivalent. The prepositions with a wider range of meanings are by that fact vaguer and can be considered more "meaningless". It has therefore seemed reasonable to some linguists to consider some prepositions as more full or empty of meaning than others. Brunot and Bruneau (1933) are among those who use the full-empty opposition within the class of prepositions. They speak of a discrete subclass of empty prepositions (de, à), a subclass of half-empty prepositions (avec, en, par, pour, sur),

and a subclass of full prepositions (1933:608). We have already noted the problems with considering more than one preposition meaningless. Furthermore, the division into subclasses seems rather arbitrary. Ebbe Spang-Hanssen (1963), who also worked with French, uses the terms "incolore" (colourless) and "plein" (full) instead of "full" and "empty", and instead of placing the prepositions in one category or another, envisages them as forming a continuum, with the most colourless prepositions at one end and the full prepositions at the other. Placing the prepositions along a continuum is preferable to Brunot and Bruneau's method in that it both avoids the necessity of making a more or less arbitrary choice what the composition of the subclasses is to be, and allows finer distinctions to be made as to the relative colourlessness of each particular preposition. In French, de lies at the colourless end of the continuum, with à and en approaching it; then comes par, followed by avec, pour and sur and then the other prepositions.

Spang-Hanssen's justification for this ordering along the continuum is twofold. In the first place, the more colourless a preposition is, the more freely it can occur in various contexts and the more variable its meaning is depending on the context (1963:226, 242). Thus pour is still relatively colourless because it can occur in such various contexts as travailler pour l'Angleterre 'work for England' and partir pour l'Angleterre 'leave for England'. In order to be able to subsume these two uses of pour under one meaning, it is necessary to resort to a higher degree of abstraction than is necessary, for example, with derrière 'behind'.

The second and more important reason for calling a preposition more colourless than another is that the resulting ordering corresponds to the ordering along another continuum, one which Spang-Hanssen calls "cohésion-décomposition" of the phrase containing the preposition and the two elements it connects. A syntagma with greater cohesion is felt as a unity, whereas in a syntagma with greater decomposition, its two elements have more autonomy one from the other. For example, (3) has greater cohesion than (4) since the fact that platanes is modified gives it greater autonomy:

3. (une place) ombragée de platanes
   '(a square) shaded by plane trees'
4. (une place) ombragée par quelques beaux platanes
   '(a square) shaded by a few beautiful plane trees'

The cohesion-decomposition opposition seems to go together with other oppositions such as indefiniteness-definiteness, figurative-literal meaning, habitual-unexpected collocation, and others. The first half of each of these oppositions tends to require the use of more colourless prepositions.

An example of the effect of the habitual-unexpected collocation on choice of preposition is illustrated in (5):

5. (a) être aimé des camarades
'to be liked by one's friends'
(b) être tourmenté par les camarades
'to be tormented by one's friends'

It is therefore not the opposition cohesion-decomposition which evokes the use of more or less colourless prepositions, but a more general opposition which underlies all of the oppositions mentioned, and others.

Minimal pairs like the ones mentioned above do not only occur when one member of a pair contains a preposition very close to the colourless end of the continuum, like de or à or even par. For example if the cohesion of a group of the form XX derrière NP is broken by the addition of a measure phrase like un peu before the preposition, derrière tends to be replaced by en arrière de (cf. ibid.:227):

6. (a) J'étais derrière le reste du groupe.
'I was behind the rest of the group.'
(b) J'étais un peu en arrière du groupe.
'I was a little bit behind the group.'

Though the phenomenon does not seem to be as productive in English as it is in French, nevertheless it does occur, as in the following example:

7. (a) She went to Tucson by/*on train.
(b) She went to Tucson on/*by a train crowded with soldiers and farmers.

It seems that if it is obvious what the relation between the two elements related by the preposition is going to be, then the preposition does not have to be specific. The more general opposition alluded to above can thus be characterized as being lesser or greater informativeness. This can be seen as a syntactic reflection of Grice's "Rule of Conversation" to be succinct (cf. R. Lakoff 1973:297)--semantically, at least, even if the actual number of syllables does not vary (e.g. when de alternates with par). The general phenomenon is far more widespread than just among prepositions; in many constructions, when a concept is the one we would expect given the context, we can attenuate its lexical manifestation in the sentence, sometimes to the point that it drops out entirely. Pronominalization is the most obvious example; the principle helps to explain the possibility of pronominalization under sloppy identity (Ross 1967:189ff), pronouns with non-syntactic antecedents (Gensler, this volume), and pronouns with antecedents in anaphoric peninsulas (Corum 1973); property-factoring and object deletion are also examples of this phenomenon.

To summarize thus far, we have seen that it is not reasonable to suppose that the entire class of prepositions is devoid of meaning, although some have held this position for pre-empirical reasons. It does seem empirically necessary to consider some prepositions as having a less specific meaning than others, and Spang-Hanssen has shown that French prepositions lie on a continuum with more meaningless, or colourless, prepositions at one end and the most specific and uniquely definable prepositions at the other end. In French a more specific preposition alternates with a less specific one in the same environment depending on whether the preposition carries a greater or lesser informative load, respectively. Although no substantial evidence is presented here, the same phenomenon seems to occur to a lesser extent in English, and it can be related to the Gricean rule of conversation to be succinct.

The next question is whether prepositions form a semantic unity. Gougenheim, we have seen, holds that they do. As a result, he wants to assimilate to the notion of "static or dynamic punctuality" not only such obvious uses of à as those in Je vais à Paris 'I am going to Paris' and Je suis à Paris 'I am in Paris', but also the use of à in temporal expressions like à la tombée de la nuit 'at nightfall', nominal expressions like moulin à vent 'windmill' and maison à deux étages 'three-storey house', expressions of manner like à l'improviste 'unexpectedly' and à tâtons 'gropingly', and expressions with a verbal complement as in (8b) and (9b) (cf. also fn. 1):

8. (a) commander une armée 'command an army'
   (b) commander à ses passions 'be in control of one's passions'
9. (a) aspirer une bouffée d'air 'breathe in a breath of air'
   (b) aspirer à un poste 'aspire to a position'

It may be true that all these uses of à are subsumed under the notion of static or dynamic punctuality in the French mind. But the very vagueness of the definition raises a problem: although Gougenheim's definition may catch all the occurrences of à in its net, it also catches all sorts of other expressions not using à as well. For example, à is not used in such phrases as s'approcher de la ville 'approach the city', le train de Paris 'the Paris train', or partir pour l'Angleterre 'leave for England'; yet all these expressions must or can contain the notion of dynamic punctuality in Gougenheim's sense. One's choice of preposition is therefore not as free as one's choice of nouns and verbs, for example, but is often conventionally prescribed. The nature of this conventionality may vary from language to language; for example, the phenomenon which Spang-Hanssen described for French seems to exist in English

only to a lesser extent. The conventionality is not total, however. It is constrained by the meaning of the preposition in question: it cannot be conventionally required in an environment which would make its apparent meaning contradict the central meaning of the preposition as a whole. We will look at some examples below.

In order to hold that prepositions have a single meaning one has to deal with the problem how that unity remains in spite of the vagaries of historical change. A very illustrative example is the division of uses among the prepositions *à*, *en*, *dans* and *sur* in French (cf. Bally 1935, Fahlin 1942). Two historical facts contributed to the allocation of uses among these prepositions. In the first place, the preposition *en*, derived from Latin *in* meaning both 'in' and 'on', in the Middle Ages began to restrict itself to meaning purely 'in', and even in some of those usages began to be superseded by the stronger *dans*, derived from *de intus*, itself a strengthening of *intus* 'within'. However, this did not occur before some expressions had become frozen and these relics still remain to this day, e.g. *mettre en croix* 'crucify', *portrait en pied* 'full portrait'. If they had not been frozen forms the preposition in each expression would have changed to *sur*, since their meaning is 'on' and not 'in'. The second historical change occurred after definite articles were introduced in the Middle Ages. Just as *à + le* > *au* and *à + les* > *as* > *aux*, so *en + le* > *el* > *ou* and *en + les* > *es* (still to be encountered in titles like *docteur ès lettres*). Later *ou* < *en + le* changed to *au*. This is why French frequently has *au* where one might expect *dans le*, for example *au lit* 'in bed', *au monde* 'in the world', *au jardin* 'in the garden'; *en France* but *au Mexique* (with feminine nouns designating countries, the article dropped). Thus history can certainly have an effect on what preposition is used where.

Nevertheless, if the hypothesized human tendency towards generalization and induction is true, then at each stage in a language an attempt is made by speakers to assimilate all the uses of a certain preposition, as a speaker learns them, to a central or primary meaning. Then in order for *portrait en pied* to remain such and not to change to *portrait sur pied*, speakers may reinterpret the relation of *portrait* and *pied* and/or the meaning of *en* in such a way that their current understanding of *en* would fit the relation. There is also another possibility, that of a conventionally-prescribed use, which will be discussed further below. An example from English which illustrates the process of semantic reinterpretation is *spoiling for a fight*: originally *for* had a meaning 'for want of' and that was how it was originally meant in this expression (Bøgholm 1939:361). But for some reason the expression stayed while the meaning of *for* changed. And so nowadays in order to reconcile the meaning of the expression to the meanings of the constituent words we adapt the meaning of *spoiling* (presumably the point in

the expression most susceptible to meaning change): Webster (7th Collegiate) gives as a final definition for spoil, 'to have an eager desire' just in order to accommodate the idiom and perhaps extensions from it.

Bally presents us with a striking example of semantic reinterpretation from French (1935:12). Originally, croire 'believe' took the preposition en after it. After the phonetic change en le > ou > au, the usual expression for believing in the devil became croire au diable whereas the analogous expression for God remained croire en Dieu, since that noun was not preceded by an article. Since then the distinction between croire à and croire en, which originally was purely morphophonemic, has been semanticized to 'belief that' and 'belief in', respectively--since you were supposed to believe in God (i.e. put your trust in him) but of the devil you were merely supposed to believe that he existed. This use of à began to be extended to other expressions, as in croire à Satan and croire aux revenants 'believe in ghosts'.

Semantic reinterpretation allows a conventionally-prescribed preposition to continue to be prescribed for a certain environment without its contradicting the central meaning of the preposition, since through semantic reinterpretation the meaning of the preposition is brought back in line with the central meaning of the preposition. In other expressions no great amount of semantic reinterpretation takes place. The fact that they continue to be acceptable shows that another kind of conventional prescription is also possible: the conventional choice of preposition may remain the same under meaning change as long as the central meaning of the preposition is not directly contradicted. Examples are the French expressions like au lit above, and in English, uses of at in expressions like at the hands of, at a glance, which are relics of an earlier meaning of at, 'obtained from' (Bøgholm 1939:120f); to before infinitives is another one.

The uses of a great number of prepositions seem to fall naturally into three types, described by Pottier (1961) as "spatial", "temporal" and "notional". Although Pottier says that "the intrinsic value [of a preposition] is simple and unitary" (ibid.:4), he does not indicate how the three types of meanings derive from the same source; if they are not derivable from a single source, then the prepositions are polysemous. Weijnen applies Pottier's trichotomy to the Dutch system of prepositions, but uses the three terms to characterize subsets of the entire class of prepositions, with some prepositions belonging to more than one subset. But although Weijnen asserts himself to be "conscious of the fundamental reality of the unity of meaning" of prepositions (1965:111), he does not attempt to demonstrate how the prepositions of the same form occurring in different layers might be related to one another. If such a demonstration is in fact impossible then the prepositions are homonymous.

None of the linguists whose works I read and who discussed the question wanted to consider prepositions as either polysemous or homonymous, yet none of them really addressed themselves to the question how such disparate uses come to be subsumed under one lexical item. H. Clark (1973) has discussed how almost all time expressions, and not just those involving prepositions, are built on two spatial metaphors, the moving ego metaphor (where the speaker sees herself as moving in time) and the moving time metaphor (where the speaker sees time as moving past her). Clark maintains (ibid.:48) that since the structure of the system of time-expressions is identical to the structure of the system of space-expressions (and the former is a subset of the latter, since time is one-dimensional and space is three-dimensional), the time system is derived from the space system. This state of affairs might be verified by imagery studies using time expressions. It tends to be verified by the fact that many early philosophers of language, such as Scaliger, Madvig and Bréal (cf. Brøndal 1950:7, who presents a history of the subject) have assumed that not only the temporal uses of a preposition but also all the figurative uses are derived by an extensive metaphor from the spatial use. Again, that the figurative uses depend on a spatial metaphor might be verified by imagery studies involving abstract concepts. Whorf has shown anecdotally (1956:145f) how deeply ingrained is the spatial metaphor in all our abstract thinking. It is not surprising, then, that the system of prepositions would tend to continue this metaphor. Clark's research therefore allows us to answer the third as well as the second of our three questions: prepositions can be unitary in meaning, at least as far as the three big divisions, spatial, temporal, and notional, are concerned, and furthermore, the spatial meaning is primary, with other uses derived metaphorically from that.

Several people have, however, objected to the conclusion that all uses of a preposition are derived from the spatial. Brøndal (1950:25) objects on the grounds that there is no reason to suppose one dimension (specifically, the spatial) to be more basic than another (the temporal), and that modern physics has shown that space and time cannot be separated to the extent that the spatial-metaphor view of temporal expressions would presuppose. But of course both these objections depend on the assumption, which can easily be shown to be wrong, that people perceive the world in terms of the paradigm of modern physics. Spang-Hanssen (1963:13) objects to the spatial metaphor for prepositions used temporally and notionally because not all prepositions have a spatial meaning, for example without or concerning. Of course the fact that concerning does not have a spatial use makes it merely irrelevant to the question whether in a preposition like on the temporal dimension is derived from the spatial. Since concerning is not used in more than one of the three dimen-

sions, the question of how to account for its polysemy does not arise. Its existence does show, however, that the spatial metaphor does not account for all prepositional uses. Although a preposition like without is not spatial in the sense that its meaning refers to one or more of the three dimensions of space, as on does, for example, nevertheless it can be used in a more concrete or a less concrete sense, as in (10) and (11), respectively:

10. He left without his coat.
11. He anticipates the event without trepidation.

The fact that in those prepositions which have a spatial use that use is primary, leads us to suppose that the meaning of a preposition like without in (11) is patterned on its meaning in (10).

This paper has been concerned with three questions about the definition of prepositions: can they be said to be meaningful at all? If so, are they polysemous or homonymous, or do they each have a single unitary meaning? And if they have a single meaning, how can all its various uses be subsumed under it? The answer to the first question was an unqualified yes. The answer to the second question was that prepositions have a single meaning, but with some qualifications: sometimes the choice of preposition may be conventionally prescribed, either by favouring one of two or more compatible notions, as in leave for England as opposed to *leave to England; or by continuing relics of older uses of a preposition, as in at a glance. Semantic reinterpretation, as has occurred in spoiling for a fight, may place conventional expressions of the second type among those of the first type. Prepositions in expressions of the second type only accord with their central meaning insofar as they do not contradict it. And the answer to the third question was that the central meaning of a preposition occurring in many different environments was the spatial or at any rate the most concrete one, and the temporal and abstract uses were derived from the spatial or concrete via a spatial metaphor.

Notes

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1. The use of à before the infinitive in some constructions, for example se décider à partir 'to make up one's mind to leave' as opposed to décider de partir 'to decide to leave', is according to Gougenheim a consequence of its meaning "static or dynamic [i.e. directional] punctuality" (1959: 14), as discussed in greater detail later in the paper.

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